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Statement of

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House Committee on Veterans' Affairs

Regarding

Three Years After 9/11: Is the Nation Medically Prepared? What should VA's Role Be in Preventing and Responding to National Medical Emergencies and Terrorist Attacks?

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Mr. Chairman and members of the Committee, thank you for the opportunity to briefly discuss the contributions of my Command toward medical preparedness in the event of a biological attack on the Homeland and cooperative efforts and research collaborations with the Department of Veterans Affairs (VA).

USAMRMC Response to the Anthrax Letters

As Commanding General of the U.S. Army Medical Research and Materiel Command (USAMRMC) and Fort Detrick, I am responsible for delivering the best medical solutions, for today and tomorrow, to enhance, protect and treat the warfighter on point for the Nation. This responsibility includes protection against biological and chemical attacks on the battlefield and, since 9/11, has expanded to include certain responsibilities

within the homeland. My Command is actively involved in many pertinent activities, some of which involve collaboration with VA, which I will share with you today.

In the face of the 2001 anthrax attacks on our homeland, our Fort Detrick scientists at the U.S. Army Medical Research Institute of Infectious Diseases, commonly known as USAMRIID, provided a valuable National public service by utilizing their military research expertise and facilities to conduct over 250,000 biological agent detection assays on over 30,000 samples collected from potentially exposed sites, including the contaminated letters to Congress, looking for the deadly bacterium.

National Interagency Biodefense Campus

As the anthrax attacks demonstrated, the new biothreat respects no borders and knows no boundaries - our Homeland is at continual risk. After the attacks, discussions began that focused on protection of the Nation against bioterror agents. Many turned to Fort Detrick for answers because, throughout its 60-year history, Fort Detrick has contributed scientific breakthroughs and medical solutions for the Armed Forces and the Nation. In fact, for over 20 years, all Centers for Disease Control and Prevention (CDC) samples came to USAMRIID for *B. anthracis* testing.

Because of its history and leadership in biodefense, USAMRIID will be the cornerstone of the National Interagency Biodefense Campus at Fort Detrick. Through partnerships between the USAMRMC, and agencies of the Department of Health and Human Services (HHS), the Department of Homeland Security (DHS), and the Department of Agriculture (USDA), the campus will be the Nation's primary center for development of defenses against biological terrorist attacks. These agencies have complementary programs and

specific expertise that, through this interagency partnership, will contribute to this mission.

To take this campus concept from vision to reality, senior leaders from participating federal agencies met in late May of 2002. The potential for operational synergy in the area of bioresearch and National defense through establishing collocated facilities with complementary and shared infrastructure were discussed. We conducted a scientific capability assessment, performed a gap analysis, and developed a strategy to close the gaps while decreasing redundancy and maximizing efficiency. One month later, the Ft. Detrick Interagency Coordinating Committee was established with representatives from participating agencies to work on environmental, master planning, financial/business, public affairs, and scientific interaction matters.

DHS - Creation of NBACC and NBFAC at Ft. Detrick

An interagency campus master plan has been developed and construction has started. The National Institutes of Health's (NIH) National Institute for Allergy and Infectious Diseases will break ground for its new facility this year. The National Biodefense Analysis and Countermeasures Center, or NBACC, of the Department of Homeland Security, will soon release an environmental impact statement for its Fort Detrick facility. The National Bioforensic Analysis Center, a component of the NBACC, has built a laboratory inside the USAMRIID building and now conducts the forensics and confirmatory testing mission in support of the FBI and certain other government agencies formerly conducted by USAMRIID. The Department of Agriculture already has laboratories at the site.

Training of Medical Practitioners for Medical Chemical and Biological Casualties

Since 1992, my Command has been a key trainer of first responders, military and civilian care providers, and other personnel through its Medical Management of Chemical and Biological Casualties Course. In onsite, on-line and satellite-transmitted distance learning courses, we have trained 134,606 people throughout the world, including 58,301 military, 75,241 civilians and 1,064 Public Health Service personnel. Among the civilian trainees are many VA personnel. An off-site course was presented to the Baltimore VA on August 19, 2004 which trained 40 VA employees. The number of personnel trained increased dramatically during 1997-1998 due to a post-Desert Storm requirement for increased training and during 2003 due to increased military requirements and increased civilian and Public Health Service participation; these latter increases may be attributable to post-9/11 interest in the training. We have also published textbooks, handbooks, field manuals, and multiple videos that are standard teaching aids used by other government and civilian agencies conducting such training.

Surveillance – Laboratory Response Network

The USAMRMC is heavily involved in the national Laboratory Response Network (LRN). Established in 1999 by the Centers for Disease Control and Prevention, the Association of Public Health Laboratories, the FBI, and USAMRIID, the network has been strengthened since the attacks on our Nation. The network builds on a longstanding, nationwide system of public health laboratories that conduct routine disease surveillance. The network ensures rapid recognition and reporting of clusters of suspicious symptoms that could indicate a biological attack. The national system links state and local public

health laboratories with other advanced-capacity clinical, military, veterinary, agricultural, water and food-testing laboratories, enhancing the U.S readiness to detect and respond to bioterrorism incidents. The first standardized protocols and reagents used by the LRN were developed with USAMRIID scientists. USAMRIID continues to serve as a national laboratory within the LRN and is assisting in the further maturation of the laboratory system. Although there are not formal agreements, under the LRN the VA can be directly supported by USAMRIID, if requested.

Surveillance - ESSENCE

Through our Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) program, we are collecting military patient encounter information into an analysis database, looking for geographic-based disease trends that would indicate a biological attack. A pharmacy component was added in 2002. The next version of the program will track military and civilian outpatient visits, over-the-counter pharmacy sales, school absenteeism and animal health data. It will also be expanded to all military treatment facilities and local civilian data in some locations. Inclusion of VA data was planned; however, VA data is now included in the BioSense program at CDC. BioSense plans to integrate DoD and VA outpatient data and over-the-counter national pharmacy information and other national data to provide a comprehensive surveillance program.

Research and Research with the VA - USAMRIID

USAMRIID is a research institute with a mission to protect military personnel from biological warfare agents. Civilian agencies are increasingly depending upon USAMRIID products or information in response to bioterrorism. The National Institute of Allergy and Infectious Diseases (NIAID) at NIH and commercial manufacturers have sought USAMRIID's biodefense medical products for civilian applications. During the past two years, USAMRIID has successfully moved products into advanced development through a partnership with NIAID. NIAID has supported the development of the next-generation anthrax vaccine, as well as multivalent vaccines for botulinum neurotoxins. NIAID is considering the development of vaccines against plague and Rift Valley fever based upon technologies developed at USAMRIID. Similarly, USAMRIID scientists are collaborating with the National Institutes of Health (NIH) to identify and develop therapeutics for a number of agents, including Ebola virus, several toxins, SARS (severe acute respiratory syndrome), and orthopoxviruses – including the virus that causes smallpox. USAMRIID has designed a novel vaccine candidate for the deadly ricin toxin that is superior to traditional approaches. USAMRIID has also collaborated with Dr. Hostetler of the San Diego VA, whom you will hear from shortly, to develop and test an oral drug to treat smallpox infection. We have had four additional agreements with VA medical centers that include transfer of materials (MTA). These include two MTA for transfer of proteins to be used in protein structure analyses, one MTA for transfer of *Francisella tularensis* DNA, and an MTA for transfer of an attenuated strain of *Bacillus anthracis*.

Research with the VA – Gulf War Illnesses

As Commander of the USAMRMC, I am also responsible for medical research that focuses upon Gulf War Illnesses and Force Health Protection for the Department of Defense. My Command began organizing and directing this research effort for the DOD in 1994. We have made enormous progress in the past decade. The best scientists in the government and renowned universities have collaborated to understand the cause and develop treatments for affected veterans.

The DOD and VA medical research programs now dovetail such that the DOD concentrates on long-term consequences of operational threats that may only emerge long after soldiers return from a deployment. VA identifies exposure risks to better prepare and protect warfighters, ultimately avoiding some of the longer-term health consequences that would appear in their hospitals. This is being accomplished through collaborative research involving both DOD and VA researchers and administrators at multiple levels. For example, researchers from at least three different VA centers are currently collaborating with DOD investigators to interview soldiers at Fort Lewis, WA, who have just returned from Iraq. This effort is part of an ambitious study jointly funded by VA and DOD to identify the most sensitive neuropsychological tests that can be used to detect early signs of a change in neurological status of soldiers following a deployment. This was one of the important diagnostic gaps identified in our Gulf War experience. Another example is the shared funding support by DoD, NIH, and VA to the neurodegenerative disease imaging center at the VA Medical Center in San Francisco. This center is developing state-of-the-art methods to use objective brain measurements to

explain subjective symptoms of chronic multi-symptom illnesses, as well as early changes that may forecast brain diseases.

Between 1994 and 2002, the US Army Medical Research and Materiel Command invested $182 million to support 154 projects. We have pursued multiple lines of investigation to treat the Gulf War veterans. Thirty-eight of these projects continue and many of these address key questions identified in earlier projects. We supported numerous surveys of the veterans, with a focus on hazardous exposure and symptoms.

Other DOD programs, started in part because of issues raised in Gulf War illnesses, are identifying hazards to the brain, including the most susceptible neurons whose loss leads to illnesses such as Parkinson's disease and Lou Gehrig's Disease, or amyotrophic lateral sclerosis (ALS). These studies will follow up on important Gulf War illnesses studies such as the joint VA and DOD study that suggests deployed Gulf War veterans may have a higher rate of ALS than non-deployed forces. This current research effort, which includes over 100 studies, is providing new insights into the causes of Parkinson's Disease and related neurodegenerative diseases; earlier diagnostic methods; preventive measures including personal health habits; and treatments. We are moving on a wide front to address the issues that began with sick Gulf War veterans looking for an answer to their diseases. These DOD efforts are coordinated with other federal agencies through a neurodegenerative disease working group that includes Offices from the NIH and VA.

In 2002, the Assistant Secretary of Defense for Health Affairs directed transition of this program to a more forward-looking effort called Force Health Protection. The primary emphasis of the program is prospective, with a goal of protecting current and future

service-members put into operational environments. The program's scientific focus areas rely heavily on lessons learned from research on Gulf War Illnesses.

Concluding Remarks

Many agencies are working closely together to ensure our Nation is medically prepared to respond to attacks on the homeland. There is much work to be done but I am confident we are headed in the right direction.

Mr. Chairman, this concludes my remarks. I will be pleased to answer your questions.